	Application No.	Applicant(s)
Notice of Allowability	09/923,498	SAH ET AL.
	Examiner	Art Unit	
	Anh Ly	2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *07/22/2005*.

2. ☒ The allowed claim(s) is/are *1-10, 12, 14-23, 25, 27-36, 38, 40-47, 49 & 51 (renumbered as 1-43)*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some*   c)☐ None of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a)☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1)☐ hereto or 2)☐ to Paper No./Mail Date _____ .

    (b)☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

    Paper No./Mail Date _____ .

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

ANH LY
PRIMARY EXAMINER

DETAILED ACTION

1.   This Office Action is response to Applicants' AMENDMEND filed on 09/19/2005.

EXAMINER'S AMENDMENT

2.   An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with Sue Holloway (Reg. No.: 37,850 on Friday, 12/09/2005.

The application has been amended as follows:

Claim 1:

1. (currently amended) 1. A computerized method of storing table data

comprising:

parsing the table data into columns of values, each column represented as a

continuous strip of data in a temporary storage;

formatting each column into a data stream for permanent storage **by linearly**

concatenating multiple columns into a single data stream; and

directing a storage device to store each data stream as a continuous strip of

compressed data without regard to a page size for the storage device.

Cancel Claim 11

Claim 12:

12. (Currently amended) The computerized method of **claim 1**, wherein **linearly concatenating** comprises linearly concatenating a series of rows, each row comprising one value from each of the multiple columns.

Cancel Claim 13

Claim 14:

14. (Currently amended) A computer-readable medium having executable instructions to cause a computer to execute a method comprising:

parsing table data into columns of values, each column represented as a continuous strip of data in a temporary storage;

formatting each column into a data stream for permanent storage **by linearly concatenating multiple columns into a single data stream**; and

transferring each data stream to a storage device for storage as a continuous strip of compressed data without regard to a page size for the storage device.

Cancel Claim 24

Claim 25:

25. (Currently amended) The computer-readable medium of **claim 14**, wherein the method further comprises linearly concatenating a series of rows, each row comprising one value from each of the multiple columns, **to linearly concatenating** the multiple columns.

Cancel Claim 26

Claim 27:

27. (Currently amended) A computer system comprising:

a processing unit;

a memory coupled to the processing unit through a bus;

a storage device coupled to the processing unit through a bus; **and**

a data storing process executed from the memory by the processing unit to cause the processing unit to parse table data into columns of values with each column represented as a continuous strip of data in the memory, to format each column into a data stream for permanent storage **by linearly concatenating multiple columns into a single data stream**, and to direct the storage device to store the data stream as a continuous strip of compressed data without regard to a page size for the storage device.

Cancel Claim 37

Claim 38:

38. (Currently amended) The computer system of **claim 27**, wherein the data storing process further causes the processing unit to linearly concatenate a series of rows, each row comprising one value from each of the multiple columns, **to linearly concatenating** the multiple columns.

Cancel Claim 39

Claim 40:

40. (Previously amended) A data storing system comprising:

a plurality of compute nodes coupled to a data source to receive table data from the data source and to parse the table data into columns of values, each column represented as a continuous strip of data in a temporary storage; and

a plurality of storage nodes, each storage node comprising a storage device and coupled to the plurality of compute nodes to receive the columns of values from the compute nodes, to format each column into a data stream for permanent storage **by linearly concatenating multiple columns into a single data stream**, and to direct the storage device to store the data stream as a continuous strip of compressed data without regard to a page size for the storage device.

Cancel Claim 48

Claim 49:

49. (Currently amended) The data storing system of **claim 40**, wherein each

storage node is further operable to linearly concatenate a series of rows, each row

comprising one value from each of the multiple columns, **to linearly concatenating** the

multiple columns.

Cancel Claim 50

Cancel Claims 52-54

3.   Claims 1-10, 12, 14-23, 25, 27-36, 38, 40-47, 49 and 51 are allowed.

Allowable Subject Matter

4.   The present application has been thoroughly reviewed. Upon searching a variety

of databases, the examiner respectfully submits that claims 1-10, 12, 14-23, 25, 27-36,

38, 40-47, 49 and 51 are allowed in light of the applicants' argument and in light of the

prior arts of made record.

5.   The following is an examiner's statement of reasons for allowance:

The claimed invention is directed to a method, computer-readable medium,

computer system and a data storing system for storing table data by parsing the table

data into columns of values, formatting each column into a data stream and transferring

each data stream to a storage device for storage as a continuous strip of data. The strip

of data is stored as a file that is not structured as a series of pages. The parsing

represents each column on a temporary storage as a strip of data. The formatting may

apply a compression algorithm to the strip of data before it is stored on a storage

device.

The closest prior arts, White et al. of US Patent No.: 5,918,225 (hereinafter

White) teaches using parser for paring table data into columns of values storing in the

temporary table and the data column is compressed before storing in the storage device

of the system. Walmsley et al. of Pub. No.: US 2004/0095608 A1 (hereinafter

Walmsley) teaches compressed data to be stored in a memory buffer without taking into

account the design of memory system.

Thus, in combination, White and Walmsley fail to teach "formatting each column

into a data stream for permanent storage by linearly concatenating multiple columns

into a single data stream"

These distinct features, in conjunction with all other limitations of the dependents

and independent claims render claims 1-10, 12, 14-23, 25, 27-36, 38, 40-47, 49 and 51

them allowable.

Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

Contact Information

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh Ly whose telephone number is (571) 272-4039 or via E-Mail: ANH.LY@USPTO.GOV **or fax to (571) 273-4039**. The examiner can normally be reached on TUESDAY – THURSDAY from 8:30 AM – 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene, can be reached on (571) 272-4107 or **Primary Examiner Jean Corrielus (571) 272-4032.**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see **http://pair-direct.uspto.gov**. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Any response to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, or faxed to: Central Fax Center **(571) 273-8300**

ANH LY
DEC. 14th, 2005